

1. (Amended) An electron-emitting device comprising:

a pair of conductors provided on a substrate so as to be opposed to

each other; and

a pair of films containing carbon as a main component which

respectively connected to the pair of conductors and disposed with a gap therebetween,

wherein sulfur is contained in the deposition film in a range of not

less than 1 mol% and not more than 5 mol% as a ratio to carbon.

2. (Amended) An electron-emitting device comprising:

a pair of device electrodes provided on a substrate so as to be

opposed to each other;

an electroconductive film which is connected to the pair of device

electrodes and has a fissure between the pair of device electrodes; and

a film containing carbon as a main component which is formed in

the fissure and on an area including the fissure and has a gap whose width is narrower than

the fissure in the fissure,

wherein sulfur is contained in the film containing carbon in a range

of not less than 1 mol% and not more than 5 mol% as a ratio to carbon.

3. (Amended) An electron source comprising:

a plurality of electron-emitting devices as defined in claim 1 or 2

which are provided on a substrate; and

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a wiring connected to a plurality of the electron-emitting devices.

4. (Amended) An image-forming apparatus comprising:
an electron source as defined in claim 3; and
an image-forming member for forming an image by collision of an
electron emitting from the electron source.

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- 5. (New) An electron-emitting device comprising a carbon film
composed mainly of carbon, and
an electrode electrically connected to the carbon film,
wherein sulfur is contained in the carbon film in a ratio of 5 mol% or
less with respect to carbon.

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6. (New) An electron-emitting device comprising:
a carbon film composed mainly of carbon, and
an electrode electrically connected to the carbon film,
wherein sulfur is contained in the carbon film in a ratio of from
1 mol% to 5 mol% with respect to carbon.

7. (New) An electron-emitting device comprising:
a pair of electroconductors disposed on a substrate; and

a pair of films connected to the pair of electroconductors,
respectively, disposed with a gap therebetween and containing carbon as a main
component,

wherein sulfur is contained in said films in a ratio of 5 mol% or less
with respect to carbon.

8. (New) An electron-emitting device comprising:

a pair of device electrodes disposed on a substrate;

an electroconductive film connected to the pair of device electrodes
and having a first gap between the pair of device electrodes; and

a film containing carbon as a main component, said carbon film
being disposed on the electroconductive film and having a second gap, located within the
first gap, said second gap being narrower in width than the first gap,

wherein sulfur is contained in the carbon film in a ratio of 5 mol% or
less with respect to carbon.

9. (New) An electron-emitting device comprising:

a pair of device electrodes disposed on a substrate so as to face each
other;

an electroconductive film connected to the pair of device electrodes
and having a first gap between the pair of device electrodes; and

a film containing carbon as a main component, said carbon film being disposed on the electroconductive film and having a second gap, located within the first gap, said second gap being narrower in width than the first gap, wherein sulfur is contained in the carbon film in a ratio of from 1 mol% to 5 mol% with respect to carbon.

10. (New) An electron source comprising a plurality of electron-emitting devices according to any one of claims 5 to 9, wherein said devices are disposed on a substrate, and wirings connected to said electron-emitting devices.

11. (New) An image-forming apparatus comprising an electron source according to claim 10, and an image forming member.--

REMARKS

Claims 1-11 are now presented for examination in this application. Previously allowed Claims 1-4 have been amended to define still more clearly what Applicants regard as their invention, in terms which are believed to distinguish over the art of record for the same reasons as set forth by the Examiner in Paper No. 9. Claims 5-11 have been added to assure Applicants a fuller measure of protection of the scope to which they deem themselves entitled.

In view of the foregoing amendments and remarks, the entire application is believed to be in condition for allowance, and such action is respectfully requested at the Examiner's earliest convenience.